

CALIFORNIA DIVISION OF MINES AND GEOLOGY

FAULT EVALUATION REPORT FER-95

January 10, 1980

1. Name of faults.

Shannon, Monte Vista, and related faults.

2. Location of faults.

Santa Clara and San Mateo Counties in portions of the Morgan Hill, Santa Teresa Hills, Los Gatos, San Jose West, Castle Rock Ridge, Cupertino, Mindego Hill, and Palo Alto 7.5-minute quadrangles.

3. Reason for evaluation.

Part of 10-year program to evaluate and revise Alquist-Priolo Special Studies Zones (SSZ) around existing active faults.

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5. Summary of available data.

The Shannon/Monte Vista faults are located primarily in the western

half of Santa Clara County and in San Mateo County just east of Portola Valley (figure 1). The Shannon fault and its branches extend from the Santa Clara Valley northwestward to Los Gatos (figures 2A, 2B, and 2C); the Monte Vista fault and its branches continue from just north of Los Gatos northwestward to Portola Valley (figures 2D, 2E, 2F, 2G, and 2H).

A. Shannon and related faults.

The Shannon fault and most of its branches were described in detail by Bailey and Everhart (1964). According to Bailey and Everhart (1964), the Shannon fault separates rocks of the Santa Teresa block to the north from rocks of the Los Capitancillos block to the south (figure 3). Rocks exposed in the Santa Teresa block range in age from Upper Jurassic and Cretaceous rocks of the Franciscan Formation to Holocene alluvium in the Santa Clara Valley; rocks of the Los Capitancillos block consist chiefly of sedimentary rocks and greenstones of the Franciscan Formation intruded by serpentine.

The main trace of the Shannon fault and most of its branches dip steeply to the northeast with movements down-dip, i.e. down to the northeast (Bailey and Everhart, 1964). Some of the smaller branches, however, were mapped by Bailey and Everhart (1964) as reverse faults (figure 2C). The net downthrow to the north was estimated to be several hundred feet and is believed to have occurred in early or middle Pliocene time (Bailey and Everhart, 1964, p. 93). The youngest unit faulted appears to be the Santa Clara Formation of Pliocene and Pleistocene age.

The main trace of the Shannon fault is covered at its eastern end by alluvium in the Santa Clara Valley. Studies by the California

Figure 1 (FER-95). Index map to the Shannon and Monte Vista faults Santa Clara and San Mateo Counties. Base map from Hart (1977, p.13).

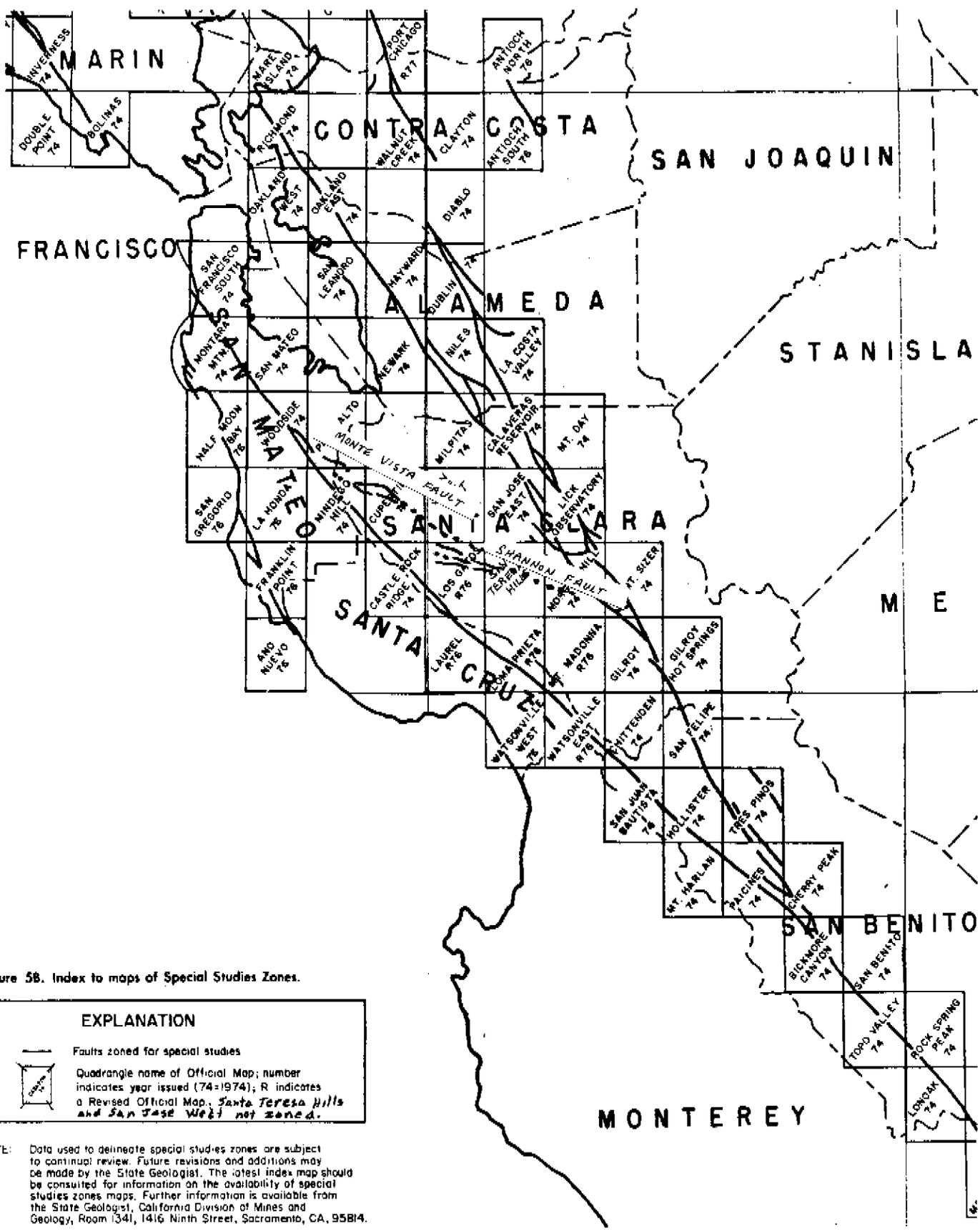


Figure 58. Index to maps of Special Studies Zones.

EXPLANATION

Faults zoned for special studies

Quadrangle name of Official Map; number indicates year issued (74=1974); R indicates a Revised Official Map. *Santa Teresa Hills and San Jose West not zoned.*

NOTE: Data used to delineate special studies zones are subject to continual review. Future revisions and additions may be made by the State Geologist. The latest index map should be consulted for information on the availability of special studies zones maps. Further information is available from the State Geologist, California Division of Mines and Geology, Room 1341, 1416 Ninth Street, Sacramento, CA, 95814.

Scale 1:1,000,000
1 inch equals approximately 16 miles

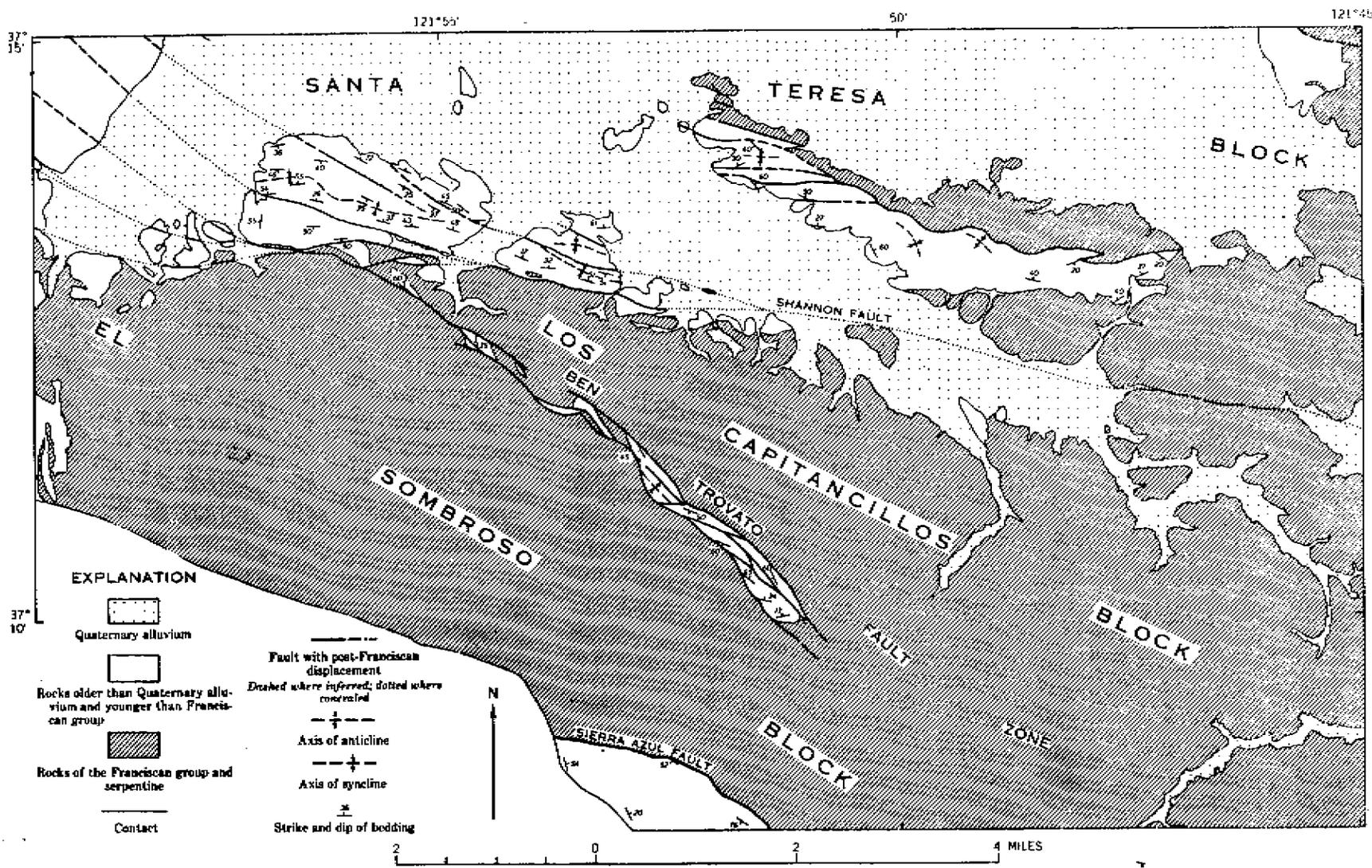


Figure 3 (FER-95). Map showing geologic units and structural features along the Shannon faults.

Map from Bailey and Everhart, 1964.

Department of Water Resources (DWR, in press) extend the fault across the valley to Coyote Creek, based on groundwater level and subsurface contours which indicate a groundwater barrier at depths below 100 feet (R. Ford, personal communication, October 3, 1979). The recency of activity and sense of movement on the fault were not determined by DWR.

Along the western side of the Santa Clara Valley (figures 2A and 2B, site 29), four trenches were dug by Lowney-Kaldveer Associates (1974) across the assumed trace of the Shannon fault on IBM property near Bailey Avenue. One trench, located in alluvium showed no evidence of shearing due to faulting to a depth of 7 feet; the other three trenches exposed zones of sheared Franciscan materials, but Holocene units were not offset by faulting.

West of Santa Clara Valley, the Shannon fault is exposed north of Calero Reservoir, but is buried under alluvium of Alamos Creek (figure 2B). The fault again emerges east of the Senator mine and extends westward as a broad zone of complex faults (figure 2C). According to Bailey and Everhart (1964), Pliocene and Pleistocene gravels of the Santa Clara Formation exposed near Blosson Hill are slightly deformed and cut by normal faults that produced minor topographic scarps and irregularities in the drainage pattern. However, Holocene alluvium in the Santa Clara Valley is not deformed (Bailey and Everhart, 1964, p. 82).

In the vicinity of Los Gatos, the Shannon fault is represented by at least five nearly parallel branches, which Bailey and Everhart (1964, p. 93) describe as being younger than the Pliocene and Pleistocene Santa Clara Formation, which they offset, and older than the Quaternary alluvium filling the Santa Clara Valley. Maps recently

prepared by the County of Santa Clara Planning Department (1975) and Santa Clara (1977) designate a one of these branches as being possibly active. However, studies by Brown and Lee (1971), the California Department of Water Resources (in press), Herd (1980), Rogers and Armstrong (1973), Rogers and Williams (1974), and numerous consultants (table 1 and figures 2A-C) do not indicate any displacement along any of the branches of the Shannon fault since deposition of the upper part of the older Pleistocene alluvial unit. Rogers and Williams (1974), based on Helley and Brabb (1971), show branches of the faults to be concealed under Quaternary units of middle to late Pleistocene age just east of Los Gatos Creek (figure 2C).

B. Monte Vista fault . . .

The northwest extension of the Shannon fault (northwest of Los Gatos) was named the Monte Vista fault by Sorg and McLaughlin (1975). Studies made by the California Department of Water Resources (1975) suggest that the Monte Vista fault joins the Shannon fault of Bailey and Everhart (1964) beneath alluvium in the vicinity of Los Gatos. Other reports by Hay and others (in press), McLaughlin (1974), and Sorg and McLaughlin (1975) suggest that the Monte Vista fault may join the Berrocal fault zone beneath the alluvium. Herd (personal communication; December 18, 1979) believes the Monte Vista and Berrocal faults may be connected at depth, but at the surface, the Monte Vista fault has much higher dips and not as much topographic configuration, and therefore is quite different from the Berrocal fault.

From Los Gatos northwestward to Monta Vista (figure 2F), the Monte Vista fault zone is mapped by most authors as being concealed beneath alluvium. From Monta Vista to Los Altos Hills (figure 2F and 2G),

the fault is composed of two parallel, northwest trending thrust zones that bound a diapir of unnamed late Miocene sandstone and shale (Sorg and McLaughlin, 1975). Northwestward to Portola Valley, the two strands of the fault join a belt of imbricate thrust faults that have been interpreted slightly differently by numerous authors (figures 2F, 2G, and 2H).

In general, the northeasternmost branch of the Monte Vista fault zone separates rocks of the Franciscan (Jurassic-Cretaceous) and Monterey (Miocene) Formations to the southwest from Santa Clara (Pleistocene) and younger units to the northeast; the southwesternmost branch of the fault zone separates rocks of the Franciscan Formation to the southwest from rocks of the Monterey Formation to the northeast (Dibblee, 1966; Jennings and Burnett, 1971). According to Hay and others (in press) and McLaughlin (1974), fault traces near Black Mountain take on the appearance of reverse or thrust faults with observed dips generally between 35° and 65° to the southwest; significant components of right-lateral slip are also believed to have occurred along zones where reverse slip is recognized (Hay and others, in press).

According to Sorg and McLaughlin (1975), late Quaternary uplift may have occurred along or near the Monte Vista fault at the following places:

- (1) Along the southwest side of both fault strands where prominent remnants of older alluvium are perched 240-320 feet above Permanente Creek.
- (2) On the northeast side of Stevens Creek, downstream from Stevens Creek Reservoir, where a large remnant of old stream terrace is present 160 feet above the present drainage.

- (3) At the mouth of Permanente Creek where the northeast strand of the fault is poorly exposed in a railroad cut just north of Permanente Road. At this locality there is some suggestion that the fault separates older alluvium on the southwest from the Santa Clara Formation on the northeast, but since the exposure is poor, Sorg and McLaughlin consider the evidence for this apparent offset as being inconclusive.
- (4) Approximately 1/4 mile southeast of location (3), where the northeast strand of the Monte Vista fault zone was well exposed in construction site excavations during August 1973. Here the fault separates late Miocene siliceous shale from the Santa Clara Formation, but no offset of alluvium was observed.

Nevertheless, Sorg and McLaughlin (1975) do not show older alluvium (upper and middle Pleistocene age) as being offset at the above locations. According to R. McLaughlin (personal communication, November 28, 1979), several trenches dug in the vicinity of these areas verify that the Monte Vista fault offset the Santa Clara Formation, but only one trench at the mouth of Permanente Canyon showed normal faulting and possible offset of older alluvium. According to McLaughlin there have been no dates documenting Holocene movement along the Monte Vista fault; most dates are mid-to-late Pleistocene, thus indicating the fault is active only in terms of Quaternary time.

A discussion with W. Cotton (personal communication, November 30, 1979) presented a slightly different opinion based on trenches observed by him in the Cupertino area. According to Cotton, a trench dug by the U. S. Geological Survey (report not available) suggested that

the fault cut alluvial flats considered by E. Helley to be 23,000 years in age. Cotton believes that the Cupertino section of the Monte Vista fault is active or potentially active based on this evidence and on the presence of nearby faceted ridges 100 or more feet high (see Hay and others, in press).

Another report by Earth Science Associates (1979) describes shear zones exposed in trenches at the West Reservoir site adjacent to the Gate of Heaven Cemetery (figure 2F) half a mile east of the main trace of the Monte Vista fault and half a mile west of the trace mapped by Herd (1980). The shears are described by Earth Sciences Associates (1979) as having tectonic origin and reflecting Holocene adjustments within the Monte Vista fault zone. The age of the offset soil horizon in two trenches was dated by Shlemon (Appendix D of the Earth Sciences Associates report, 1979) as being in the range of three to five thousand years. These ages were based on reconnaissance observation and soil stratigraphic interpretations; soil profiles were not described or sampled for mechanical and chemical analyses. Examination of trench logs, however, indicate discrepancies in directions of dips and in apparent sense of movement along the shear zones in trenches T-1 and T-2 (see Appendix A, Earth Sciences Associates, 1979). In addition, the four fault traces mapped at the West Reservoir site are discontinuous splays that evidently could not be traced for distances greater than 200 feet. R. Tepel (personal communication, January 4, 1980), who inspected the various trenches for the Santa Clara Valley Water District, believes that further work is needed to determine the extent of faulting in this area and its relationship to previously mapped traces of the Monte Vista fault.

Significantly different traces of the Monte Vista fault were mapped

by Herd (1980) as a series of imbricate thrusts (figures 2C, 2E, and 2F). According to Herd (personal communication, December 18, 1979), a series of discontinuous northeast facing scarps present in the alluvial fans of the Santa Clara Valley cut at least two of the four identified terraces younger than the Santa Clara Formation. The youngest unit cut by the scarps is at least late Pleistocene in age but not assuredly Holocene, according to Herd. Herd considers the Monte Vista fault to be active based on disruption of late Pleistocene alluvium and at least 100 feet of vertical relief along the front of the mountain range west of the valley.

C. Seismicity.

A Quality epicenter data plotted by Real and others (1978) is presented in figure 4. According to Brown and Lee (1971), the cluster of epicenters near Cupertino may be related to an unnamed southwesterly dipping reverse fault mapped by Dibblee (1966). The location of epicenters, the focal depths of the earthquakes, and the nature of the fault movement as determined from the seismic data suggest that the fault is at a depth of about 3 miles; at the surface, however, Holocene and late Pleistocene alluvial deposits are not noticeably affected along the trace of the fault (Brown and Lee, 1971, p. 3).

It has not yet been precisely determined whether epicenters reported by Brown and Lee (1971) and Real and others (1978) can be correlated with movement along either the Monte Vista or Shannon faults. However, McLaughlin (personal communication, November 28, 1978), believes that movement along the Sargent-Berrocal fault system (figure 5), which he considers to be active (McLaughlin, 1974), could be transferred to the Monte Vista fault. Possible recent activity is also suggested

by Lawson (1908, p. 107 and 108) who reported numerous surface fractures along a branch of the San Andreas fault in the Portola Valley after the San Francisco earthquake of 1906. These fractures were observed by Lawson across Alpine and Page Mill Roads near Palo Alto (figures 2G and 5). While Lawson (1908, p. 107) reported vertical uplift on the northeast side of the fault, he was not able to determine whether displacement was the result of fault rupture, lateral thrusting, or settling of incoherent materials to the south.

6. Aerial photo interpretations and field observations.

Analysis of 1939 (National Archives Collection) aerial photographs and field investigations are summarized on figures 2A through 2H. Although topographic and tonal lineaments near Blosson Hill and Los Altos Hills suggest the presence of numerous bedrock faults in these areas, the faults do not appear to displace colluvial or Holocene alluvial deposits in the nearby valleys. No hard evidence of Holocene displacement was observed along the Shannon fault or mapped traces of the Monte Vista fault near Stevens Creek and Permanente Creek or across Page Mill Road and Alpine Road.

7. Conclusions.

A. Shannon fault. Although there is general agreement as to the location of the Shannon fault mapped by Bailey and Everhart (1964), there is no evidence from a review of available data, aerial photo interpretations, or field observations that branches of the Shannon fault offset Holocene units. The youngest units reported to be offset are Pleistocene in age (Bailey and Everhart, 1964; Lowney-Kaldveer Associates, 1974). Because there is no evidence of Holocene displacement along the branches of the Shannon fault,

the fault does not meet present criteria of being "sufficiently active" for zoning under the Alquist-Priolo Act (see Hart, 1977, p. 7).

B. Monte Vista fault.

- (1) Geomorphic features, such as perched remnants of older alluvium along Permanente and Stevens Creek and faceted ridges 100 or more feet high, suggest that branches of the Monte Vista fault have been active as recently as late Pleistocene time. This evidence has been substantiated in a poorly exposed railroad cut (Sorg and McLaughlin, 1975) and in several trenches (see figures 2D-H and table 1) that verified offset of the Pleistocene Santa Clara Formation and, possibly in some places, older alluvium approximately 23,000 years in age. However, except for minor shear zones reported 1/2 mile from the principal mapped traces (see conclusion (2) below), the Monte Vista fault does not show evidence of Holocene surface displacement.
- (2) Shear zones exposed in trenches described by Earth Sciences Associates (1979) are considered to cut soils ranging between three and five thousand years old. However:
 - (a) trench logs showed several discrepancies in apparent sense of movement along the shear zones;
 - (b) the shear zones were located 1/2 mile from previously mapped traces of the Monte Vista fault both east and west of the site;
 - (c) faults could not be traced for more than 200 feet in the field.

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Further work is needed to determine the extent of faulting in this area and its relationship to previously mapped traces of the Monte Vista fault.

- (3) Seismic data showing a cluster of epicenters in the vicinity of Cupertino suggests possible fault movement at depth, but at the surface Holocene and late Pleistocene alluvial deposits are not noticeably affected along the trace of the fault (Brown and Lee, 1971). In fact, it has not yet been precisely determined whether the epicenters can be correlated at all with movement along either the Monte Vista or Shannon faults.
- (4) There are numerous interpretations among trained geologists as to the precise location of the trace or traces of the Monte Vista fault as a physical feature at or just below the ground surface (figures 2C to 2H). Because there is a general lack of agreement as to the location of the fault, and because there is a lack of evidence of Holocene surface displacement, the Monte Vista fault does not meet the present criteria of being "well-defined" and/or "sufficiently active" for zoning under the Alquist-Priolo Act (see Hart, 1977, p. 7)

8. Recommendations.

- A. Shannon fault. Because there is no evidence of Holocene displacement along the Shannon fault and its branches, the Shannon fault should not be zoned at this time.
- B. Monte Vista fault. The Monte Vista fault should not be zoned at this time because:

- (1) except for minor shear zones reported 1/2 mile from the principal mapped traces, the Monte Vista fault and its branches show no hard evidence of Holocene surface displacement;
- (2) there is considerable lack of agreement as to the precise location of the Monte Vista fault.

C. Because there is some evidence that suggests portions of the Monte Vista fault may be potentially active and, in some places, possibly active during Holocene time (see Conclusions B(1-3)).

- (1) additional research and exploration on the Monte Vista fault should continue;
- (2) new information regarding the location and activity of the fault should be evaluated for possible zoning in the future.

9. Report completed on January 10, 1980, by:

Trinda L. Bedrossian

TRINDA L. BEDROSSIAN
 Geologist, RG 3363
 San Francisco District Office

I concur with the recommendations not to zone the Monte Vista and Shannon faults, based on the evidence presented. Significant new data that would suggest zoning should be evaluated when it becomes available and as time permits.

*ELH
 3/18/80*

TABLE 1 (FER-95). List of consulting reports on file in Santa Clara County, Land Development office. Compiled by Jim Moreno, CDMG, 1979.

CDMG NUMBER - LOCATION	SANTA CLARA CO. NAME - LOCATION	COUNTY MAP SHEET NUMBER	CONSULTANT	DATE	FAULT - FOUND BY	TITLE	COMMENTS
X 1	DAVIS (DUKE)	140	TERRARESEARCH	APRIL 30, 1974	-	SOILS & GEOLOGIC INVES. ON LANDS OF PULLEY, SANTA CLARA CO.	-
X 2	HOLMES	140	ALLIED GEOPHYSICS	JUNE 14, 1976	SEISMIC	HOME ADDITION CONSTRUCTION, 16484 S. KENNEDY ROAD, LOS GATOS	FAULT INDICATED BY SEISMIC ANAMOLY
X 3	SMITH, GEORGE	140	ALLIED GEOPHYSICS	NOV 17, 1976	-	SINGLE BUILDING SITE APN 537-25-09, 2.786 ACRES, NORTH SIDE SHANNON ROAD, LOS GATOS. LETTER GEOLOGIC REPORT	FAULT AS MAPPED BY USGS...
X 4	BAUER, PHIL	140	TERRATECH	AUG 23, 1975	-	GEOLOGIC FEASIBILITY STUDY, LANDS OF BAUER, LOS GATOS	FAULT AS MAPPED BY USGS...
X 5	CUSHMAN	140	ALLIED GEOPHYSICS	AUG 12, 1976	-	CUSHMAN SINGLE RESIDENCE SITE, APN 537-24-022, 15.9 ACRES, TOP OF THE HILL ROAD, NORTH FROM KENNEDY ROAD, LOS GATOS, CA.	-
X 6	SNYDER	140	ALLIED GEOPHYSICS	JAN 30, 1976	-	SNYDER RESIDENTIAL SITE, 1000 FEET NORTHERLY OF KENNEDY ROAD ON TOP OF THE HILL ROAD, LOS GATOS, CA. PAGE SINGLE RESIDENCE SITE	-
X 7	JOHN CLARK	140	J.B. SCOTT AND ASSO.	AUG 20, 1977	-	ENGINEERING GEOLOGY INVESTIGATION OF PARCEL 537-21-018, LOCATED ABOUT 1000 FEET NORTHERLY OF KENNEDY ROAD, LOS GATOS.	-
X 8	ART PRETTOL	140	UNITED SOIL ENGINEERING	MAY 15, 1975	TRENCHES	GEOLOGICAL & GEOPHYSICAL INVESTIGATION FOR PROPOSED RESIDENTIAL DEVELOPMENT, TOP OF THE HILL ROAD, SANTA CLARA CO.	FAULT, CONTACT BETWEEN MONTEREY SHALE & TEMPLOR FM, ALSO FAULT CONTACT BETWEEN SERP. & MONTEREY SANDSTONE BURIED UNDER 6' UNDISTURBED ALLUVIUM
X 9	KEN FOLLMAR	140	HOWARD F. DONLEY & ASSO.	FEB 24, 1976	TRENCH	GEOTECHNICAL ENGINEERING INVESTIGATION, PROPOSED SINGLE FAMILY RESIDENCE, KENNEDY ROAD, SANTA CLARA CO.	FAULTED CONTACT BETWEEN MONTEREY SHALE & T. EMBLOR SS IN ONE TRENCH 60' LONG
X 10	PRITCHARD	140	PURCELL, RHOADES & ASSO.	APR 21, 1976	-	SOIL & GEOLOGIC INVESTIGATION ON SKY LANE IN SANTA CLARA CO.	-
X 11	DIDUCA	140	A. ALLIED GEOPHYSICS B. J.C.P. GEOLOGISTS	A. JAN 12, 1977 B. DEC 13, 1977	-	A. DIDUCA SINGLE BUILDING SITE, APN 537-27-055, 3.7 ACRES, LOS GATOS, SANTA CLARA CO. B. ENGINEERING GEOLOGIC STUDY FOR 2 HOMESITES ON DIDUCA WAY.	-
12	MICHELE CHIECHI	140	-	-	-	-	NOT CURRENTLY ON FILE
X 13	PUDDY	140	BAY SOILS, INC	MAY 18, 1977	TRENCH	SOIL & GEOLOGIC INVESTIGATION ON PROPOSED RESIDENCE ON SHANNON ROAD	"SHEAR ZONE WITH NO EVIDENCE OF ACTIVITY" POOR LOCATION OF TRENCHES, FAULT DOES NOT CUT SOIL
X 14	IMPEG	140	FA. STEJER	APR 14, 1978	-	ENGINEERING GEOLOGY STUDY OF ASSESSOR PARCEL 537-19-07 SANTA CLARA CO.	LIMESTONE REPORTED ON SITE!
X 15	D. PERRUCCI	140	LEIGHTON & ASSO.	JULY 1, 1975	PITS	GEOLOGICAL INVESTIGATION OF PROPOSED RESIDENTIAL SITE, PERRUCCI PROPERTY, KENNEDY ROAD, SANTA CLARA CO.	NO FAULTS OBSERVED. SERPENTINE LENS EXPOSED IN ONE TRENCH, COLLUVIUM NOT OFFSET.
X 16	LARRY MORRIS	140	TERRATECH	JAN 6, 1977	-	GEOLOGICAL / GEOTECHNICAL INVESTIGATION, LANDS OF MORRIS, SANTA CLARA CO.	"FAULT AS MAPPED BY BAILEY AND EVERHART, USGS PP 360"
X 17	TRACY SCOTT	140	ALLIED GEOPHYSICS	MAR 15, 1977	-	SCOTT SINGLE RESIDENCE SITE, APN 537-16-008, 3.025 ACRES, DEER PARK ROAD, SOUTHERLY FROM SHANNON ROAD, SANTA CLARA CO.	-
18	ARRIS ENTERPRISES	140	-	-	-	-	NOT CURRENTLY ON FILE
19	BACIGALAPI	140	-	-	-	-	NOT CURRENTLY ON FILE, COVERS A SQUARE MILE, CITY OF LOS GATOS REPORT.
X 20	LEITCHMAN	140	J.M. CLEARY & ASSO.	JUN 15, 1977	-	SOIL AND GEOLOGICAL INVESTIGATION FOR LEITCHMAN RESIDENCE, SANTA CLARA CO.	-

* CDMG numbers correspond to numbered locations plotted on Figures 2A through 2H.

TABLE 1 (FER-95). continued

CDMG NUMBER - LOCATION	SANTA CLARA CO. NAME - LOCATION	COUNTY MAP SHEET NUMBER	CONSULTANT	DATE	FAULT - FOUND BY	TITLE	COMMENTS
21	G. DAY CONSTRUCTION	126	APPLIED SOIL MECHANICS	SEPT 29, 1926	-	PRELIMINARY SOILS AND GEOLOGIC FEASIBILITY STUDY, KARL AVENUE PROPERTY, MONTE SERENO, CA.	NOT A FIELD INVESTIGATION
22	VENUTI	126	-	-	-	-	NOT NEAR FAULT
23	R. EDELL	127	-	-	-	-	NOT ON FILE
24	ROBERT CORY	138	-	-	-	-	NOT NEAR FAULT OR ON FILE
25	KEN GROSSMAN	139	-	-	-	-	NOT NEAR FAULT
X 26	D.M. SELLERS	139	TERRATECH	MAR 4, 1976	-	GEOLOGIC FEASIBILITY STUDY, LANDS OF SELLERS AND DIMANTO, MONTE SERENO, SANTA CLARA COUNTY	SITE ON LANDSLIDE, SAME REPORTS AS 27
X 27	OBURN	139	JCP GEOLOGISTS	NOV 7, 1977	TRENCHES	ENGINEERING GEOLOGIC STUDY FOR TWO HOME SITES OFF OVERLOOK ROAD, SANTA CLARA CO.	SAME REPORTS AS 26 "NO FAULT OBSERVED"
X 28	RON GABRIEL	139	JC PRENDERGAST	MAY 28, 1976	-	PROPOSED RESIDENCE, SHELDON DRIVE, LOS GATOS	MINOR LANDSLIDE ON PROPERTY
29	IBM	157	LOWNEY-KALDVERE ASSOC.	APRIL 26, 1974	TRENCHES, BORINGS	FAULT LOCATION STUDY, PROPOSED IBM WEST COAST PROGRAMMING DEVELOPMENT CENTER, SAN JOSE	TRENCHES "SHOWED NO EVIDENCE OF SHEARING DUE TO FAULTING TO A DEPTH OF 7 FEET."
X 30	GUADALUPE RUBBISH DISPOSAL CO. EIR	141	TERRATECH	-	-	-	-
X 34	FRANK T. SOUZA	156	GEOCONSULTANTS	JUN 29, 1978	MAGNETOMETER	GEOLOGIC FEASIBILITY INVESTIGATION AND GROUND WATER EVALUATION, PARCEL NO. 708-41-006, 22601 SAN VICENTE AVE, SAN JOSE	FAULT FOUND BY MAGNETOMETER "WHERE MAPPED"
X 35	SAM WIENS	156	C.W. DAVIDSON	-	-	PRELIMINARY GEOLOGIC AND SOILS REPORT FOR SAM WIENS, SAN VICENTE AVENUE, COUNTY OF SANTA CLARA	A LETTER REPORT SIGNED BY A CIVIL ENGINEER "FAULT BURIED HERE"
X 36	PACHECO	156	ALLIED GEOPHYSICS	FEB, 3 1978	-	LETTER GEOLOGIC/SEISMIC REPORT, FILE 13577.22 PACHECO MINOR LAND DIVISION, 2 PARCELS APN 708-41-028, 2.5 ACRES GROSS	FAULT NOT ON PROPERTY
X 37	HOWARD VIERRA	156	TERRATECH	AUG 16, 1977	-	GEOLOGIC FEASIBILITY STUDY AND LEACH FIELD EVALUATION, LANDS OF VIERRA	REPORT DOES NOT MENTION FAULT
X 38	SCOPPETTONE	156	GEOCONSULTANTS	OCT 9, 1978	MAGNETOMETER	GEOLOGIC FEASIBILITY INVESTIGATION AND GROUNDWATER INVESTIGATION, PARCEL NO. 701-36-004, MCKEAN ROAD, SANTA CLARA CO.	FAULT DRAW WITH RULER AS DASHED LINE, NO EXPLANATION IN TEXT.
X 39	ANDERO CONSTRUCTION	156	-	-	-	SOIL & GEOLOGIC INVESTIGATION IN SANTA CLARA COUNTY OF ANDERO CONSTRUCTION COMPANY	-
X 40	STILE RANCH	142	BURKLAND AND ASSOCIATES	JUNE 19, 1978	PITS	EVALUATION OF EXCAVATION FOR LEACH FIELDS, STILE RANCH, SANTA CLARA CO. [WITH] SUPPLEMENTAL TRENCHING OF OCT 10, 1978	PITS, POORLY LOCATED DID NOT FIND FAULT
X 41	SHAPELL INDUS.	142	-	-	-	-	CITY OF SAN JOSE REPORT
X 42	PIERCE	141	APPLIED SOIL MECHANICS	MARCH 30, 1976	TRENCHES	GEOLOGIC AND SEISMIC HAZARDS INVESTIGATION, PIERCE PROPERTY, SAN JOSE, CA.	REMNANT OF FAULT ACTIVE DURING EARLY PLEISTOCENE TIME ; OVERLAIN BY UNDISTURBED ALLUVIAL SOILS
X 44	LOS GATOS HIGH SCHOOL	126	APPLIED SOIL MECHANICS	MARCH 11, 1974	TRENCH	GEOLOGIC AND SEISMIC HAZARDS INVESTIGATION, LOS GATOS HIGH SCHOOL, LOS GATOS [AND] DETAILED FAULT INVESTIGATION, CONTINUING EDUCATION SCHOOL AND DISTRICT OFFICES SITE, MAY 6, 1974	NO FAULTS IN TRENCH WHICH WAS LOCATED BY BOTH SEISMIC AND MAGNETOMETER SURVEYS
X 45	AL WOOLWORTH	126	UNITED SOIL ENGINEERING	JUN 24, 1975	-	SOIL AND GEOLOGIC INVESTIGATION FOR TRACT NO. 5702, 9 LOT RESIDENTIAL SUBDIVISION, SANTA CLARA CO.	-

TABLE 1 (FER-95) continued

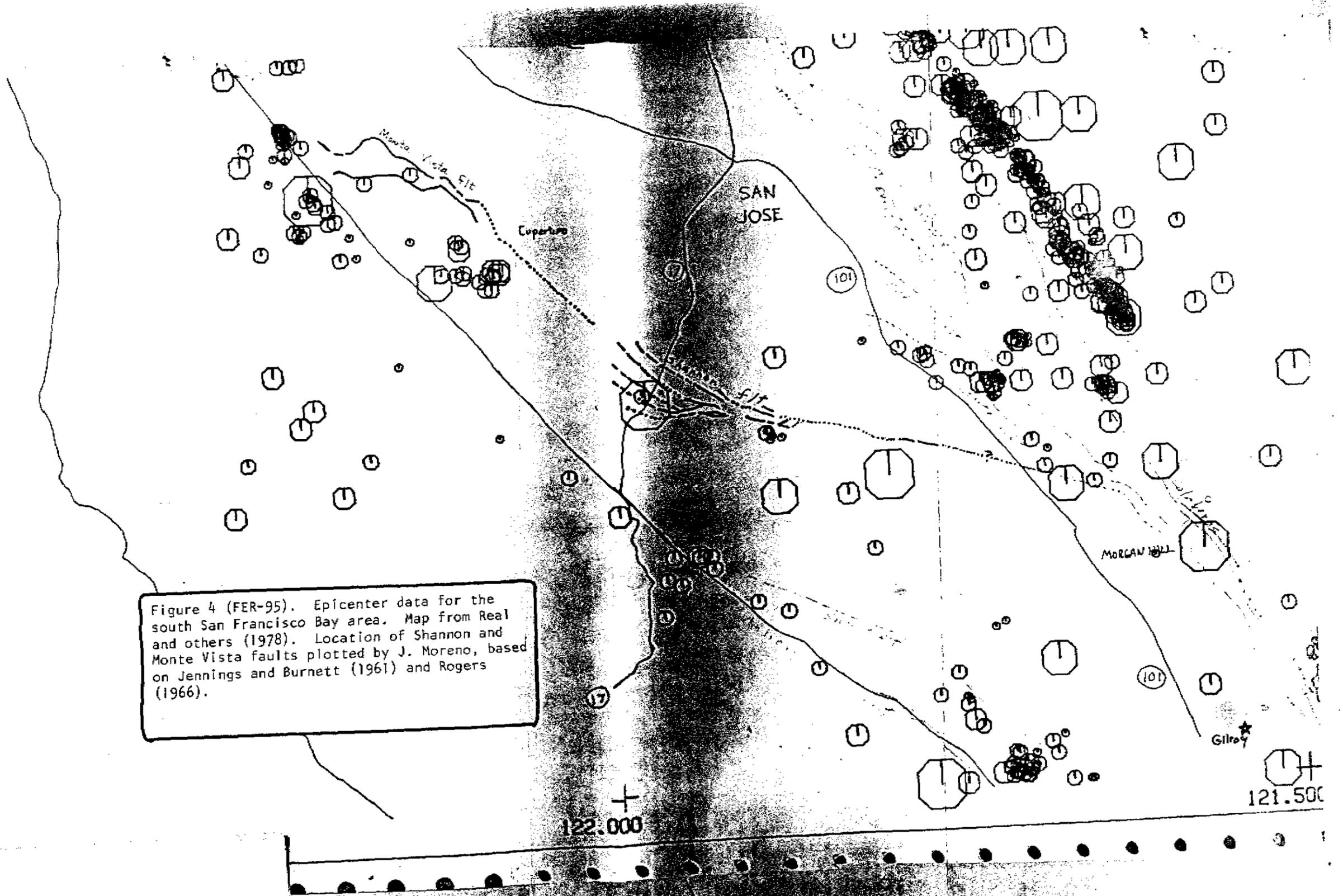
CDMG NUMBER - LOCATION	SANTA CLARA CO. NAME - LOCATION	COUNTY MAP SHEET NUMBER	CONSULTANT	DATE	FAULT - FOUND BY	TITLE	COMMENTS
46	LOS GATOS PROPERTIES INDUSTRIAL PARK	126	-	-	-	-	NOT ON FILE
47	PARKER RANCH	96	APPLIED SOIL MECHANICS	JULY 7, 1977	TRENCHES, PITS	GEOTECHNICAL INVESTIGATION REPORT FOR THE PARKER RANCH PROPERTY, IN SARATOGA, CALIFORNIA	CITY OF SARATOGA REPORT, NO EVIDENCE OF FAULTING
X 48	LAVANBOLK	96	-	-	-	-	NOT IN FILE
X 49	MIKE AKATIEF	96	-	-	-	-	LETTER REPORT DOES NOT ADDRESS FAULTS
X 50	KESTER RANCH	95	BURKLAND AND ASSOCIATES	MAR 14, 1975	PITS	RANCH DEEP CLIFF, CUPERTINO, CA., RESULTS OF THE TRENCHING OF THE GEOPHYSICAL ANOMALIES [AND] PEPPERTREE DEVELOPMENT, APRIL 28, 1972 [AND] GEOPHYSICAL SURVEY, RANCH DEEP CLIFF, FEB 13, 1975	NO FAULTS FOUND IN PITS
51	ST. JOSEPH'S COLLEGE SOIL REPORT	79	-	-	-	-	NOT A GEOLOGIC REPORT
X 52	RADACH	63	TERRATECH	APR 5, 1976	TRENCH	GEOLOGICAL/GEOTECHNICAL INVESTIGATION, TRACT 5801, LANDS OF RADACH, SANTA CLARA CO.	FOUND FAULT STRUCTURE THAT DOES NOT CUT SOIL
X 53	JOHNSON	63	J.M. CLEARY & ASSOCIATES	FEB 13, 1978	TRENCHES	GEOLOGIC HAZARDS INVESTIGATION, LANDS OF JOHNSON ON EAST BROOK AVENUE, SANTA CLARA COUNTY	TRENCHED, NO FAULT
54	CAUGHLIN	63	-	-	-	-	SOIL REPORT ONLY
X 55	SINGLEWALD	63	TERRATECH	AUG 10, 1977	TRENCH	GEOLOGIC INVESTIGATION, LANDS OF SINGLEWALD, SANTA CLARA CO.	TRENCHES, NOT LOCATED, DID NOT FIND FAULT
X 56	RICH BELL	63	UNITED SOIL ENGINEERING	JUL 28, 1975	PITS	2 LOTS RESIDENTIAL DEVELOPMENT, CHARDONWAY LANE, LOS ALTOS, CA., GEOLOGICAL/GEOPHYSICAL INVESTIGATION	PITS FOUND FAULT THAT DOESNT CUT SOIL, STYLIZED LOGS, APPROXIMATE LOCATION, TRENCH IS N 29 W
57	FRANK TRIPIANO	63	HALLENBECK-MCHAY & ASSO.	MAR 26, 1976	-	REPORT OF PRELIMINARY GEOTECHNICAL INVESTIGATION, LOTS A & B, TRIPIANO PROPERTY, LOYOLA DRIVE, NEAR GREENWOOD DRIVE, LOS ALTOS HILLS AREA [AND] [SAME TITLE, PLUS] ENGINEERING GEOLOGY REPORT, APRIL 8, 1976	-
X 58	SEMAS-NEARLY	78	TERRATECH	APR 6, 1978	-	GEOLOGIC FEASIBILITY STUDY ON SEMAS-NEARLY PROPERTY	"SHEAR ZONES... AS MAPPED BY ARMSTRONG & ROGERS"
X 59	STEINBERG	79	GEOCONSULTANTS	DEC 28, 1976	-	STEINBERG PROPERTY ON LOYOLA DRIVE AND ROSENBERG AVE, LOS ALTOS HILLS, PRELIMINARY GEOLOGIC FEASIBILITY STUDY	-
X 60	GERARD HOMES	79	TERRARESEARCH	FEB 1, 1977	TRENCHES	GEOLOGIC INVESTIGATION ON LANDS OF BLANCHARD, MORA DRIVE, SANTA CLARA COUNTY FOR GERARD HOMES	"AN UNPUBLISHED MAP HAS BEEN COMPILED BY WILLIAM COTTON FOR THE TOWN OF LOS ALTOS AND IS BASED ON A NUMBER OF RECENT GEOTECHNICAL INVESTIGATIONS IN THIS AREA" NO FAULT FOUND IN TRENCH
X 61	J.C. OWENS	79	-	-	-	-	SOILS REPORT ONLY
X 62	MANCINI	79	PSC ASSOCIATES	APR 4, 1977	-	GEOLOGIC AND SOILS INVESTIGATION, MORAGLEN DRIVE, LOS ALTOS HILLS, CA	-
X 63	KELLEY	62	ALLIED GEOPHYSICS	AUG 18, 1972	-	IN-DEPTH GEOLOGIC STUDY, KELLER SINGLE RESIDENCE SITE, PARCEL 336-32-069, 1 ACRE, LA LOMA DRIVE, LOS ALTOS HILLS, CA	-
X 64	SCHEM N	62	CIVIL AND CONST- RUTION CONSULTANTS	MAY 17, 1974	-	A PROPOSED RESIDENCE BUILDING SITE ON NORTH EAST CORNER OF PROSPECT AVENUE AND EDGECLIFF PLACE IN LOS ALTOS HILLS AREA	-

TABLE 1 (FER-95) .. continued

CDMG NUMBER - LOCATION	SANTA CLARA CO. NAME - LOCATION	COUNTY MAP SHEET NUMBER	CONSULTANT	DATE	FAULT - FOUND BY	TITLE	COMMENTS
x 65 JACK TUITE	62 TERRASEARCH			FEB 10, 1978	PIT	PROPOSED HOUSE ADDITION, 27240 MOODY ROAD, SANTA CLARA COUNTY CA., SEISMIC AND GEOLOGIC EVALUATION	NO FAULT FOUND
x 66 P PARKER	61 FRANCIS A. STEJER			JUN 15, 1976	-	LETTER TO "MR & MRS. JOHN PARKER, 26888 ALMENDEN COURT, LOS ALTOS HILLS, CALIFORNIA	"BEDROCK MATERIAL SEVERLY DEFORMED AND ALTERED BUT NOWHERE WITHIN THE FOUNDATION EXCAVATIONS EXAMINED IS THERE A WELL-DEFINED FAULT TRACE VISIBLE" SOIL REPORT ONLY
x 67 REIMER AND ARBUCALE	45						
68	EARTH SCIENCES ASSOC.			SEPT 1979	TRENCHES	WEST RESERVOIR GEOTECHNICAL FEASIBILITY INVESTIGATION	FAULTS IN TWO TRENCHES BELIEVED TO OFFSET ALLUVIUM DATED 3,000 - 5,000 YRS. OLD; TRENCH LOGS SHOW SOME DISCREPANCIES IN SENSE OF MOVEMENT ALONG SHEAR ZONE.

PACIFIC OCEAN

Figure 4 (FER-95). Epicenter data for the south San Francisco Bay area. Map from Real and others (1978). Location of Shannon and Monte Vista faults plotted by J. Moreno, based on Jennings and Burnett (1961) and Rogers (1966).



+

122.000

121.500

Gilroy

Morgan Hill

SAN JOSE

Cupertino

Monte Vista F1E